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Introduction[1]

This paper explores shifting valuations involved in the production of »natural resources« in a range of empirical contexts situated in the Middle East, Central Asia, South Asia and East Africa. Drawing on several thematic strands from an ever-growing literature on the subject of resources, it reflects discussions of the ZMO research group *The Politics of Resources*, a collective of (presently) seven researchers – anthropologists, historians, geographers – who investigate how power, wealth, influence and social signification have been engendered by processes of resource extraction, transformation, and commodification in diverse historical moments and geographical situations since the 19th century.[2] As a programmatic text, the article delineates a field of enquiry and a set of questions which are central to our group's research. When and how are specific matters or substances re-valued as resources, how do they acquire economic significance, and how is their commercialisation entangled with alternative valuations? In this paper, we focus in particular on the latter angle, examining »moral« (normative, aesthetic or affective) values in their interplay with political-economic transformations. Given ZMO's programmatic interest in the field of tension between the normative dimension of Islam and the actual life worlds of Muslims, we explicitly ask in which way religion figures in these transformative processes.

Although the management, distribution and control of land, water, forests or minerals have long been classical themes for the social sciences including history, economy and social philosophy (e.g. Thompson 1963; Davis 1988; Bollig, Bünnagel 1992; Peluso 1992), there has been a marked upsurge in social scientific publications on these issues since the mid-2000s. The social, political, economic and cultural processes through which specific matters are »turned into« resources have recently been investigated from such different disciplinary perspectives as political economy (for instance, Bond 2006; Glassman 2006), critical geography (Bakker, Bridge 2006; Bridge 2009, 2011, 2014), anthropology (Ferry, Limbert 2008; Richardson, Weszkalnys 2014; Li 2014) and history (Westermann 2003; Bulliet 2009; Davis, Burke 2011; Mikhail 2013). In much of this more recent literature, natural resources are understood neither as »natural« nor as given in their resource-ness, but as the product of »economic, political and cultural work« (Bridge 2011: 81). The renewed interest in natural resources is linked to wider debates about global political economy and ecology; two strands which have clear interrelations with each other. Invoking questions of sustainability, environmental protection and ecological justice, these debates are driven by concerns about the perceived effects of accelerated climate change, and refer in part to the contested notion of the »anthropocene« (see, among many others, Crutzen 2002; Castree 2014; LeCain 2014; Swyngedouw 2015). A second, related strand takes up crit-

1 We thank our colleagues from ZMO, in particular Paolo Gaibazzi and the members of ZMO's advisory council for their comments on earlier versions of this paper. The project on which this publication is based was supported with funds from the Federal Ministry for Education and Research (funding code 01UG1413). The authors are responsible for the content of this publication.

2 The individual case studies explore 19th century Central Asia, the African Red Sea Coast in the 19th and 20th century, contemporary Tanzania, Turkey, Lebanon, Pakistan and the Kurdistan Region of Iraq with regard to different matters such as land, water, uranium, grain, livestock, salt deposits and forests or timber.

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ical perspectives on global economic-political restructuration processes that are often subsumed under the heading »neoliberalism« (less frequently, »capitalism«). The increasing commodification of natural resources, and the commercialisation and appropriation of nature more generally, has been critically scrutinised by a large body of literature informed by critical geography and political economy (Bakker 2004, 2005, 2009, 2010, and others; Castree 2003, 2008 a and b, 2015; Heynen et al. 2007; Swyngedouw 2004, 2015). Much of this research responds to David Harvey's (2003) argument concerning »accumulation by dispossession« according to which capitalism today hinges on the necessity to continuously (re)create new spaces in which profits can be made and reinvested (Harvey 2003: 137ff).

Many economic anthropologists, sociologists and political economists have investigated the ways in which economic practices are entangled with (or »embedded in«) political, social or moral institutions (e.g., Hann, Hart 2009; Streeck, Beckert 2007; specifically on the notion of »moral economy«, see Thompson 1971; Scott 1976; Friberg, Götz 2015). However, although the new literature on resources is, to a great deal, implicitly shot through with moral valuations, the intersections between economic and moral valuations in the production of natural resources have not yet been systematically scrutinised. The economic revaluation of substances, matters or landscapes as resources may run counter to, but may also envelop or even feed on, other (social, cultural or religious) norms, values and orders, which may in themselves be highly differentiated or even contradictory. In fact, the notion of value is itself not a stable category, but is shifting and multivalent (Otto, Willerslev 2013). In many languages, terms denoting value may be used in a double sense: firstly, as a reference to financial worth or price, and secondly, as an indication of aesthetic, normative or moral quality. Earlier approaches to the anthropology of value (Graeber 2001; Miller 2009), which have partly inspired this paper, have highlighted the connections and contestations which bring the two contrasting meanings together. We seek to extend this perspective further by tracing the conjunctures between economic and moral valuations in the production of »natural« resources. More specifically, this paper argues that immaterial or »moral« values effectively influence processes of economic and material valuation.

Materiality and morality

Despite the variations in their perspectives, most if not all recent contributions on so-called natural resources share an understanding that »resources are not: they become« (to rephrase economist Erich Zimmerman's often-quoted observation, formulated in 1933) – in other words, that a matter or a substance is rendered a »resource« through human intervention of some sort. While such a relational or functional understanding of the category resource may seem quite plausible with regard to particular minerals, or metals, which in some historical periods have been regarded as worthless, and in other contexts as highly valuable for the production of other commodities, it may appear more questionable in the case of substances which are, and always have been, essential prerequisites for survival. This observation has led Weszkalnys and Richardson[3] to asking whether specific substances have something like an inherent »resource-ness« to them; it would also seem to make a decisive difference for the »moral economies« woven around particular substances (water, oxygen, land) as compared to other matters (gold, diamonds, uranium etc.). Do the processes of revaluation involved in the creation of natural resources differ from processes of commodification of »other things« – and if so, how?

One way to explore this question would be by focussing on the material qualities and properties of natural resources. Theoretical developments derived from Actor-Network-Theory (ANT) which questions modernist assumptions about a categorical distinction between human and non-human actors (Latour 1991, 2005), and the associated renewed interest in materiality (the so-called »ontological« or »material turn«; cf. Bennett, Joyce 2010), alert us to the significance of the physical qualities of substances (whether they are mobile or immobile, liquid or solid, light or heavy, slow- or fast-growing) for their transformation into resources. These physical properties render resource abstraction and transformation a contingent process; the substances in question may thus be seen to assume agency in that their material properties have an effect on the way in which commodification, enclosure or privatisation measures are carried out. Water is a particularly evocative example, as it is an essential necessity for survival of humans and other living organisms. While recent debates around access to water are based on rational, even utilitarian arguments (Bakker 2003, 2007, 2010, and others; Sultana, Loftus 2011), water has also been invested with highly symbolical valuations in many different cultural and geographical settings. In many contexts, watercourses and lakes are believed to be dwelling places of spirits and other mythical beings. Water has considerable spiritual significance for notions of (ritual) purity; moreover, it is central to many practices and rep-

3 We borrow this formulation from the programmatic outline for the conference *Engaging Resources – New Anthropological Perspectives on Natural Resource Environments* organised by G. Weszkalnys and T. Richardson, 12-14 April 2012, in Waterloo (Canada); http://engagingresources.org/project/description/ (last accessed 14 July 2015).

resentations of sociability (Limbert 2001; Kaplan 2011).

Precisely because of humankind's (and other species') essential need for water, and because of its concomitant high material and symbolic significance, its uses and its governance have been strongly regulated for thousands of years. The rich body of Islamic legal traditions dealing with water, which have in their turn been analysed and debated in a wealth of scholarly literature (Wilkinson 1990; Mallat 1995; Faruqui et al. 2001; Naff 2009), bears witness to this, as do other literatures. The plethora of prescriptions and normative frameworks associated with water make its commodification particularly sensitive (cf. Bakker 2004, 2005; Sultana, Loftus 2011). In social contexts where »no one is supposed to make a profit […] from water« (Limbert 2001: 46–47), attempts to privatise and commoditise water may be challenged by references to these normative prescriptions.

Beyond its immediate consumption, water is also needed to convert other matters (e.g. land, gold) into useful resources. In these transformative processes, different valorisations of water may also affect the ways in which other matters are or were valued. An example, based on the research conducted by our colleague Jeanine Dağyeli, would be the ways in which the values of wheat in 19th century Central Asia were conditioned. These (symbolic as well as monetary) values depended on the water which went into producing the grain. Different types of water were ordered according to a system of cultural hierarchies: while spring rain was said to be »white«, river water was considered »black«. The wheat grown in rain-fed fields (rare and restricted to mountainous regions) was also referred to as »white«, since it was considered to be »purer« than wheat irrigated from channels or rivers. Generally speaking, things described as »white« were considered to be more »noble« than their darker counterparts. This grain therefore fetched higher prices in the market than wheat from the (more productive) irrigated fields in the river valleys and plains. These water-induced valuations linger on although they do not inform market behaviour in any significant way today.

In settings where flooding and other kinds of natural volatility are frequent, water holds an ambivalent status. Otherwise venerated and esteemed as life-giving, it can be seen as threatening as well. Ecological volatility strongly affects modes of living, as the example of the Aral Sea basin shows: here, even sedentary populations have more or less regularly shifted to temporary settlements if water shortage or excess demanded (Devletjarov, Günther 2013). Even more dramatic temporal shifts in the evaluation of one and the same substance become visible in the aftermath of disasters such as the 2010 floods in Pakistan, investigated by our colleague Ali Nobil Ahmad, in which entire populations were displaced and livelihoods destroyed by the material destruction wrought by water (Ahmad 2014).

Let us turn to another substance to further trace the entanglements between materialities and moralities of resources. In the regions in which our group's research projects are located, the extraction and commodification of hydrocarbon substances (most notably, oil) have played a decisive role in shaping political and economic orders over the past century. Mitchell (2009, 2013) has critically scrutinised the context of industrial relations with respect to coal and oil, the nature of hierarchies and relations of power involved in organising the labour, arguing that the material properties of the substances extracted significantly shape the political configurations and power constellations that build on their extraction and transformation. As infrastructures also influence the possibilities of social and economic participation and create, change or perpetuate unevenness in space and time, proponents of Science and Technology Studies argue that »material realities emerge from complex networks in which the social and the technical are inseparably intertwined« (Hecht 2009: 899). Timothy Mitchell (2014: 438) therefore considers »[t]he building of infrastructure« as »politics of nature«, while at the same time »nature is produced in infrastructure«. »Relations of power« are thus »engineered« into landscapes of resource extraction which can be read, Mosse (2003: 3) argues, as repositories recording the »history and labour which shaped« the natural world. Thus, the circumstances under which oil is produced, transported and traded, Mitchell (2009, 2013) contends, have contributed to social and political injustice (and are conditional to the current economic order of the world).

However, if many notions and practices built around the actual, possible or projected value of a matter or substance relate directly to its physical properties and the material conditions of human existence, it must again be noted that resource imaginaries extend beyond the realm of use-value and encompass the cosmological, spiritual and aesthetic dimensions of socio-natural relations. Moreover, the example of oil alerts us to the fact that »moral« valuations regarding natural resources are not limited to social actors »out there«; rather, they form an integral part of scholarly production, as well. Similar to water, oil is fluid and mobile; and its values are similarly judged in strongly moral tones; but – at least in a good deal of the recent anthropological literature – in contrast to water, the production and commodification of oil has often been regarded in predominantly negative terms. Oil has been taken to symbolise the epitome of the »resource curse« (Behrends, Reyna 2011); its extraction and commodification have been associated with a severe lack of accountability, high

levels of environmental pollution, and the disenfranchisement of local populations (see also Weszkalnys 2014). In this vein, oil production has been described as being associated with or even potentially causing a lack of democracy, since revenues from oil are often not distributed equally or justly among the population of oil-producing countries or are used to co-opt populations which might otherwise demand political participation.

Needless to say, any assumption that the above listed problems are somehow inherent to the substance of oil itself is easily problematised by the comparative study of a range of diverse contexts in which oil has been turned into a resource. The outcomes differ, based on a range of factors other than the substance involved – oil –, including global structural inequality as well as the particular political constellations under which it is produced and traded (not all oil producing countries can be characterised in terms of the »resource curse«, after all (cf. Behrends et al. 2011; Logan, McNeish 2012).

Mitchell's analysis underlines that the nature of the labour involved in producing resources affects their valuation not only in economic, but also in ethical terms. Contradictory value orders concerning different types of labour might even coexist in one and the same social setting, with different actors drawing on one or the other variously for their arguments. Moreover, since, as Richardson and Weszkalnys (2014) insist, resources are produced not as isolated substances, but as part of more complex »resource environments«, we have to widen our perspective to consider in which ways oil (as well as gas) exploitation, and the labour regimes involved, affect not only international as well as national power structures and hierarchies, but also uses and valuations of substances other than oil: water, land, forest or air. Consider the example of Iraq's Kurdistan Region, researched by our colleague Katharina Lange: Following a general political and security stabilisation after years of extreme violence, (in)fighting and instability, oil and gas exploitation in Kurdistan have led to the emergence of a budding rentier economy since the 2000s. Agricultural work (an economic mainstay for most families until the 1970s) came to be considered widely as too »tiring« and not profitable enough compared to the recently available white-collar work and easily accessible salaries afforded by the state bureaucracies. While these tendencies are widespread, they are discursively frequently criticised in moral and national(ist) terms as a »laziness« which may »endanger« the national project, as it makes Kurdistan's foodstuff markets dependent on the production and selling capacities of Kurdistan's neighbouring »enemy states«, Turkey and Iran. These political-economic shifts have also affected valuations of agricultural land in Iraqi Kurdistan. With increasing (oil) wealth, land in rural areas has been revalued as a status symbol and a resource for spending leisure time, rather than a means for making a living. Economic factors such as soil fertility and physical accessibility have, in some places, been replaced by aesthetic criteria (nice views, picturesqueness) in the judgement of property values in rural regions. Prices for agricultural land – which cannot, under Kurdistan's legal provisions, be sold to foreigners – have risen in many places due to a general feeling of optimism and anticipation for the future: »land is becoming expensive because people think it might become even more expensive«.[4] It remains to be seen which course these transformative processes will take in the framework of recently renewed political tensions and violent clashes in the region since 2014, which are affecting economic parameters as well.

In another context, our colleague Steven Serels has argued that the commencement of oil extraction in Sudan at the end of the twentieth century transformed the political importance of land and water. As the modern Sudanese state came into being over the first half of the twentieth century, its power was increasingly derived from its ability to control the limited fertile regions and surface water in the arid and semi-arid regions of Northern, Central and Eastern Sudan. This control allowed state officials to intervene in regional grain markets in ways that ensured compliance with state programmes. Therefore, the base of state power was derived from the ability of the state to feed its population and, as such, implied a set of moral responsibilities between ruler and ruled. However, the weakness of this power-base was demonstrated during the devastating 1984-5 famine. In the wake of this famine, oil exporting provided the Sudanese state with a new base of power – China. To protect its investment in Sudanese oil resources, China started to simultaneously sell arms to the Sudanese government and to block international efforts to prosecute human rights abuses committed against the Sudanese population, often with these arms (Serels 2013).

Temporality and rhythm

The disjunctures between different temporal scales and rhythms involved in the production of wealth by resource extraction in many cases figure into moral evaluations. Valuations manifest and rely on the relations between different temporalities, namely assumptions about the relations between past, present and future (cf. Ferry, Limbert 2008). This becomes particularly evident in all processes involving speculation on future development of prices, as for example in cotton markets (Çalişkan 2011) or carbon trading, where various forms of »time making« are intertwined.

4 Interview notes K. Lange, Duhok, 23 March 2015.

Besides the sets of highly abstract, global or translocal practices, which are involved in speculating in »futures markets«, ethnographic research demonstrates the influence of frameworks of temporality in very specific, bounded places, pointing to the significance of affective and speculative dimensions for processes of resource (re)valuation. Resource extraction, resource making is frequently a protracted activity. The possibility or realisation of resource extraction elicits affects such as hope, fear or desire among investors who drive these processes, as well as among the communities which live in areas where resources are extracted, and those who consume the commodities they become (Weszkalnys 2014; Li 2014: 595). This process often begins well before the actual moment of extraction: it is usually preceded by a period of planning followed by infrastructural investments and by building activities designed to facilitate access, transport and extraction or transformation of the resources in question. These preparations may involve transformations of legal and administrative structures as well. The affective dimension of this preparatory phase has been characterised as one of »anticipation« (Weszkalnys 2014); a stance which may contain anxieties as well as hopes, and which engenders manifest transformations at different social and political levels well before the first unit is extracted (for other examples, see Behrends 2008; Limbert 2008, 2010; similarly Onneweer 2014).

In the case of the Turkish town of Yusufeli which is at the centre of the research conducted by our colleague Erdem Evren, anticipations of future consequences of planned resource transformations translate directly into changes in monetary valuations and thus trigger particular modes of economic calculations and behaviour. In this case, the values, affects and meanings which are attached to the past by the inhabitants of the region impacted by the hydropower schemes contradict, at least partly, the inhabitants' hopes and desires for making a profit in the future. On the one side, several residents are currently building greenhouses and barns and purchasing newly built flats based on the expectation that these activities will yield a profit in the form of compensation payments once the expropriation in the town begins. Yet, these investments for the future are juxtaposed with the narratives of belonging to the jeopardised built environment, shared local identity and past, accompanied by the transmission of affects such as fear and alienation. Moreover, the past itself, or at least its representation through visual, digital and material mediums (i.e. photos, museums etc.) also emerges as a resource that is hoped to be sold once the new settlement area is completed. The condition of waiting that big construction projects almost always induce seems to have foregrounded a shift from normative valuations expressed in moral terms to an entirely economic logic of valuation, resulting in the exuding of entirely different or even conflicting affective responses.

The drawn-out temporal rhythms which structure social life around many instances of resource extraction are counterpointed by hopes for quick gains which are also characteristic of resource-related ventures. This may translate into a sense of urgency and hurry driving investor practices, which have often been described as a »rush« (gold rush, land rush, etc.). Resource frontiers often characteristically appear to offer opportunities to quick gains or promises of wide profit margins which are disproportionate to labour inputs.

The speed with which labour and investment are expected to turn over large gains are significant not only for processes of valuation, but may also inform patterns of consumption related to resource-generated wealth. A number of studies suggest that the revenues which are generated quickly through particular modes of resource extraction – for instance, diamond mining in Sierra Leone (d'Angelo 2014) or the elusive promise of red mercury in Kenya (Onneweer 2014) – trigger certain modes of lavish, conspicuous expenditure which embody short temporal rhythms. Despite the desires they elicit, the quick gains promised by particular ventures of resource extraction are – in such diverse geographical contexts as Africa, Southeast and Central Asia – often classified as potentially unlucky or dangerous. The speedy manner in which riches may be acquired through mining or drilling schemes may therefore translate into equally »quick«, flashy and ephemeral spending. The »polluted money« made through gold mining in Mongolia, for instance, is usually not used to establish long-term and foundational projects, such as financing a marriage or building a house. Rather, it is spent quickly, often on transitory things (such as food and alcohol) in order to get rid of the bad luck that this tainted money threatens to bring (High 2013). Another example has been given by Michelle Gamburd in her analysis of remittances from labour migration of Sri Lankan women to the Gulf States (Gamburd 2004). Here, the money generated from resource (i.e. oil) extraction is mediated through the market for domestic labour in the Gulf with structures, affects and hierarchies that are often perceived as particularly bitter. Many Sri Lankan labour migrants to the Middle East hurry to spend their wages, believing that a delay would result in »something bad« happening »to take [the money] away from them«. The reason given is that »their employers begrudge paying their servants' wages«, »tainting« the money with their »ill will and dislike« (Gamburd 2004: 167); although the temporalities and speed of spending also strongly relate, as Gamburd shows, to social ties, obligations and ex-

pectations of »needy friends and relations« in Sri Lanka (Gamburd 2004: 178).

If the (economic) value of resources is generated between different temporal and spatial scales, how are these differences mediated? One possibility is to look at the use of money, as a classical medium through which commensurability of different entities is created and expressed and different spatial scales are bridged. However, many contributions to the anthropology of money have shown the entanglements between the supposedly abstract, freely exchangeable and substitutable functionality of money, and the lasting attachments and inalienable ties which may inhabit particular, specific coins, banknotes or valuable objects (cf. Maurer 2006). Interestingly, a good number of these studies address wealth generated through resource extraction. We have already mentioned the evaluation of money made by gold mining in Mongolia as »polluted« analysed by High (2013); in the case of sapphire mining in Madagascar, the money is »hot« (Walsh 2003, see also Znoj 1998); it is »bitter« (Shipton 1989; Werthmann 2003) or »wasted« (Clark 1993); while diamond mining in Angola produces »wild« money (de Boeck 1999: 87), and the wealth generated by oil drilling in Chad is referred to as »the devil's money« (Behrends 2012).[5] This does not mean that such entanglements are necessary (or exclusive) to the wealth generated by resources; but in the case of resource extraction, the temporalities and the respective materialities involved underwrite such relations in specific and concrete ways. Yet again, these material aspects are strongly imbued with immaterial, cultural, or »moral« values. Depending on the physical properties of the substances in question, their extraction may be associated with daring activities that often transgress not only geological, physical or geographic, but also legal and moral boundaries (see Onneweer 2014; d'Angelo 2014 and others). These transgressions may lead to lasting disturbances which may often be described in the dual terms of purity and pollution. The shafts driven into the ground during gold mining ventures in Mongolia, for example, »are seen to disregard important cosmological distinctions, thereby allowing the flow of pollution from the lower into the upper domain, from the wild into the orderly«. This pollution extends to the mining sites, the miners' camps and even the money generated from mining (High 2013: 681).

Instances of uranium mining (researched, in the Tanzanian context, by our colleague Patrick Schukalla) are another case in point. While mining uranium may be considered a dangerous, polluting, sickening, even deadly activity, it may also be valued positively, as offering opportunities of wealth and prosperity. Gellert and Lynch (2003: 16, 20), more generally, argue that large-scale projects of resource extraction are often driven by aims like the »alternation of property relations or commodification«, while the implication of particular projects is backed and legitimised by »modernizing ideologies«. Again, the temporal dimensions at work here are shot through with affective engagements. The contests around the use of nuclear energy, and the extraction of radioactive materials from rocks and soil, highlight the importance of temporalities for the legitimisation of such projects. Advocates promote it by invoking the »universalizing promise of ›modernization‹ and ›development‹« (Hecht 2009: 898, 2012: 21). This legitimising agenda is, for instance, explicitly written into the Tanzania Atomic Energy Commission's official mandate – a commission which is, at the same time, also charged with the observation of the planning and implementation of uranium production. However, the task of balancing the hopes and the fears associated with uranium mining is not only challenging on paper, but is in practice very difficult (if not impossible) to implement: thus, government institutions in Tanzania have had to admit that they lack the necessary capacity to deal with the occurrence of uranium in drinking water in one of the uranium prospecting areas of central Tanzania (Dasnois 2012: 11). Hence critical voices have called to avoid any Tanzanian participation in the nuclear fuel chain, and warn against emergent conflicts with current usage of land and water in the potentially affected areas (Mbogoro, Mwakipesile 2010). Challenging and advocating positions towards uranium mining in Tanzania can thus be conceptualised as conflicting rationalities of »resource making«, as different ideas of valorisation intersect in a conflicting manner in the same »resource environment« (Richardson, Weszkalnys 2014).

The double notions of purity and pollution are not only invoked in small-scale, local contexts, but are at work in moral evaluations of larger-scale resource-related transformative processes as well. An example would be green investment schemes, which are attractive to shareholders, donors and investors not least due to the promise of »clean« profits. The normative value placed on environmental conservation and protection generates considerable profits by attracting not only investors, but individuals, NGOs and corporate donors who seek to support »green« schemes which in practice often function at the intersection of public and private usages and rights over resources (Bakker 2010: 715). Although such schemes overtly aim at creating non-material values, they tap into previously unknown opportunities for accumulation and profit (Li 2014: 597). Another example is the establishment of financial tools and mech-

5 These different qualifications of money have been discussed in High 2013.

anisms by global institutions such as the United Nations, the World Bank, private corporations and transnationally operating investment funds which claim to counter the dangerous effects of climate change through the creation and trading of carbon offsets from forests. The Middle East and North Africa (two of the regions projected to be most severely affected by global warming and climate change) have recently seen the spread of schemes of »green capitalism« and projects related to global carbon markets. In several countries of the southern Mediterranean, forests are prepared to be integrated into REDD+ (Reducing Emissions from Deforestation and Forest Degradation), a UN-sponsored scheme which proposes to counter or slow down the detrimental effects of carbon-based industries and related greenhouse gas emissions by allocating monetary value to forests which act as »carbon sinks« (Dalsgaard 2013). The effects of these measures on local communities in Lebanon are researched by our colleague Juliane Schumacher. Critics have denounced such different forms of »green« capitalist ventures as »green grabbing«, i.e. as yet another form of more or less violent appropriation of resources and, in effect, as accumulation by dispossession (cf. Fairhead et al. 2012).

In processes such as these, normative considerations and moral values, framed in terms of sustainability, »virtue«, and »justice«, clearly serve to promote and legitimise profit-oriented policy measures. But challenges to these and other forms of resource extraction and commodification are also ultimately based on moral or ethical norms and values.

The Role of Religion

Finally, we turn to the role of religion as one possible referent framework from which »moral« values might derive. The local communities in the empirical contexts that we investigate, situated in the Middle East, Central Asia, South Asia and East Africa, are predominantly Muslim. However, this commonality must not be assumed to imply an overarching system of belief and thought that necessarily informs similar attitudes and systems of meaning for people's lives (cf. Schielke 2010). Different legal schools of thought, sectarian affiliations and competing interpretations of canonical texts underlie many but not necessarily all local practices. These texts may be drawn upon to legitimise, denounce or tolerate specific practices. But rather than representing a rigid framework, they constitute a repository of »the ideal« which is open to deployment in various contexts and directions. Even within a single religious tradition, competing and even contradictory normative references may be invoked when meanings, uses and valuations of a particular resource environment are concerned; and, religious norms are by no means the only overarching language of legitimisation which may be employed to challenge processes of commodification, enclosure, privatisation or socialisation/nationalisation. Values such as the protection of the environment, health concerns, or the greater common good, may be invoked to challenge processes of commercialisation. These values may be rhetorically grounded in religious beliefs; but they may on the contrary also be used to override religious norms.

Let us consider a range of empirical examples, which evidence very different ways in which »Islamic« values have been invoked in contests and struggles around resource use and environmental transformation, to illustrate these points. In the Central Asian context researched by our colleague Jeanine Dağyeli, the predominant school of legal thought for centuries was Hanafi law, according to which privately owned land continued to be the property of the owner even if he or she had left and abandoned agriculture in this locality. Although the state possessed the right to install new tenants on this plot to secure production and tax income, the land had to be returned once the original owner returned and could rightfully prove his/her entitlement. Even if, as Johansen (1988) found for Mamluk and Ottoman dominions, law was increasingly interpreted to the disadvantage of small landowners, the Hanafi privilege of the original owner was exploited as a means of regulating and controlling the population in border areas in Central Asia. As tax evasive migration was widespread, the promise of reinstalling original owners on their land proved a potent incentive which even survived the collapse of the Bukharan Emirate after the Soviet takeover. Into the mid-1920s, peasants who had fled the Soviets but were willing to return were repeatedly granted land and other rights along these established precepts.

A quite different example are the measures regarding property distribution and resource exploitation implemented by the Taliban during their brief takeover in a resource-rich district of North West Pakistan (2007-9). Our colleague Ali Nobil Ahmad's (as yet unpublished) inquiries into the class struggles leading up to, and following the Taliban uprising in Swat suggest that in its early stages at least, the revolt was fuelled by a distinctly redistributive rhetoric that bore shades of left-wing peasant radicalism. The terrorisation and expropriation of large landowners, together with the (re)distribution of land, orchards etc. and opportunities to benefit from emerald mining to landless peasants, were clearly informed by longstanding resentments over local inequalities in resource-distribution, and arguably even suggestive of Maoist influences reminiscent of India's Naxalite movement. On the other hand, the evolution of the Taliban's tactics over time into outright coercion and plunder would appear to

suggest that resources were doled out as spoils within the framework of an ostensibly secular war economy in a manner envisaged in economist Paul Collier's famous »greed theory« (cf. Collier, Hoeffler 2004). Care must be taken not to misrepresent the consistent references to Sharia as merely »super-structural« veneer obscuring the Taliban's »true« motivations; however, the fact that during both the early and the latter phases of the Swat uprising, the invocation of »Islamic justice« was underpinned by these longer-standing conflicts underlines the need to avoid simply taking religious rhetoric and/or discourse at face value. In colonial Malaya, Malhi (2011) argues, »Islam« became a frame of reference around which resistance to colonial techniques of spatial regulation, and the revision of local cultivation practices, crystallised. According to her perspective, enclosures and technologies managing land and forest, and regulating property, which were pushed by the British in the Malay Peninsula since the 1780s, revised not only existing regimes of land distribution and cultivation, but also aimed at transforming local subjectivities and biopolitical relations. Local elites expressed resistance to these transformations which culminated in an armed struggle, violently suppressed, in the 1920s. The rebels invoked »Islamic notions of land use and resource entitlement« as well as »expansive notion[s] of political space and subjectivity that could not feasibly be enclosed« by claiming to speak »in the name of the [...] global Muslim community« which was posited as sovereign in the whole Muslim world (Malhi 2011: 730-732). Through the invocation of this expansive sovereignty of the global Muslim community, based on divine authority, in a local struggle against enclosures and increasing technocratic regulation of land and forest in this contest over control and power, and transforming subjectivities, two globalising logics were, in essence, pitted against each other.

In other cases, however, political and economic elites have claimed a convergence of such different globalising logics. »Indigenous«, »traditional« or »customary« ways of conceptualising human-environment relations have occasionally been hailed as possible alternatives to supposedly »Western« commoditising logics. Conversely, they have also been regarded as possible tools that can be harnessed to make particular political measures aiming at regulating these relations more palatable to local communities (cf. Berkes 1999). The recently increased interest in the relation between Islam and ecology on the part of activists as well as scholars (e.g. Dien 2000; Foltz 2000; Foltz et al. 2003; Al-Damkhi 2008; Al-Jayyousi 2012) is at least partly motivated by similar desires. For example, the identification and adoption of »Islamic best practices« for sustainable resource management has recently been advocated by proponents of global development (Sait 2013; see also UN-Habitat 2010; Sait 2008; Sait, Lim 2006; Faruqui et al. 2001). This development-oriented literature is often largely based on the analysis of normative legal or theological discourses, rather than detailed case studies of social or economic practices, thus disregarding the classical observation that »Islamic legal categories [of land ownership and use...] often bear little relationship to actual practice« (Owen 2000: ix). Even contributors to the development-oriented, more normative literature on »Islamic environmentalism« acknowledge the contrast between the actual empirical variety of »Muslim« engagements with resource extraction, and the normative prescription of the existence of one »Islamic« ethos towards human stewardship over the environment and social justice: »Given the staggering number of Muslim communities and the numerous manifestations of faith among Muslims, attempts to establish a global Islamic [...] natural resource management framework would be futile«, acknowledges one of them; but then sets out to suggest the possibility of pursuing exactly this »futile« project by claiming »Islamic resource management tools« (namely »property rights for cultivators of barren (*mawat*) land, Islamic endowments (*waqf*) adapted for community welfare, robust individual usufruct (*tassaruf* [sic]) rights over state land, and Muslim collective tenures«) which could potentially be harnessed to generate local »legitimacy« and »authenticity« for policy recommendations that are conceived in a supposedly translocal or global sphere of development institutions (Sait 2013: 476).

The example of the Gulf States demonstrates yet another way in which »Islamic« legitimacy has been claimed for visions of development and progress. In the United Arab Emirates, mega-engineering projects such as the offshore creation of artificial islands, the construction of »the world's tallest buildings« or the daily enablement of indoor skiing and skating in one of the world's hottest climates have been praised by local governments and elites, as well as admired throughout the world, for realising visions of a »hypermodern« lifeworld on the Gulf. Another facet is the large-scale »greening« of the Emirates, i.e. the transformation of vast stretches of desert into lush gardens. However, these endeavours have also raised considerable concerns about the environmental consequences of these projects. The associated levels of energy and, in particular, water consumption (as well as the degree of dependency on air travel to maintain this lifestyle) have been criticised as they quickly exhaust natural reserves, contribute to global warming, and in the long run, put the newly created world in danger of submersion by climate-changed induced flood-

ing.[6] In the face of such (and other) criticism, the Emirates' government has praised the hyper-modernisation projects as not only placing the country at the forefront of innovative technological and architectural design, but also as evidencing a new level of human mastery over nature. Moreover, religious rhetoric (notably the invocation of divine approval) is used to lend legitimacy to these controversial policies: »[…] with God's blessing and our determination, we have succeeded in transforming the desert into a green land«, the Emir of Abu Dhabi and the United Arab Emirates' first president, Sheikh Zayed bin Sultan Al Nahyan (1918-2004) is quoted (Ouis 2011: 1413). Yet more recently, in the line of the above-mentioned trends, the Gulf States are making considerable efforts to become more »climate-friendly« by investing in renewable energies and carbon offsetting through hyper-progressive projects. An example is the projection of Masdar City in Abu Dhabi, announced in 2006, as »the world's first ›zero-carbon‹« (and zero-waste) city – a project which is ironically driven by revenues generated through carbon consumption, and associated with a high degree of control and secrecy (Jensen 2014; Günel 2014). Evaluated in terms of divergent temporalities, the idea of Masdar City has thus been judged to be »both a great model for a sustainable future and an anachronistic example of something belonging to a more sinister past« (Jensen 2014: 53).

Conclusion

The examples and perspectives highlighted in the preceding pages underline the importance of engaging not only with the material and economic dimensions of resource making in order to understand shifting patterns of valuation and revaluation, but of focusing equally on other registers – registers which we have here subsumed under the heading of »moral« valuations.

These moral valuations include ethical and normative prescriptions which may have their roots in religious or other reference systems; as well as cosmological aspects and affective engagements pertaining to different facets of resource making.

We have argued that immaterial considerations contribute significantly to shaping material (social or economic) dimensions of resource making. We have also followed Weszkalnys and Richardson's suggestion to consider »resource environments« in their entirety, rather than trace the social and cultural trajectories of a particular substance. However, with regard to this perspective, an open question remains: where to draw the conceptual (and geographical) boundaries of these research environments, and which methodologies to adopt to investigate them. Typically, valuations involved in resource production (both »moral« as well as »economic«) are rooted in very different spatial scales. Would the »resource environment« for oil drilled in Saudi Arabia, for instance, comprise a village in Sri Lanka where part of the money generated in global oil markets is spent? While the different localities of this environment are linked through biographies and money flows, how do we conceptualise the very different normative systems and scales at work in this resource environment together as part of one and the same resource environment?

As our case studies are situated in Muslim-majority societies, we explicitly questioned the role of religion, and specifically Islam, regarding resource-related transformations of value. The tension between the great empirical diversity of the ways in which natural resources are dealt with in Muslim communities and societies, and the assumption that there is, or should be, one underlying normative framework guiding all of them, echoes wider debates about the nature of »Islam« and »the Islamic world« which underpin our institute's overall research programme. Religious and other belief systems may provide constants which implicitly inform actions and practices although overall political or social frameworks have changed dramatically. On the other hand, »Islamic« articulations of »proper« resource use are enmeshed, in each case, with local as well as translocal power relations, political imaginaries and ideological struggles. It is therefore necessary to question the political factors and agendas behind assumptions that legitimise or challenge certain patterns of appropriation, extraction or distribution of natural resources by referring to »Islamic« values.

While in some instances, invocations of »Islamic« values and norms may serve to challenge dominant orders of resource distribution and dispossession, in other settings political projects enabling exclusion, privatisation and commodification may rhetorically draw on Islamic frameworks in support of these projects. It becomes equally clear that in the settings we investigate, references to »Islam« coexist with a range of other normative frameworks which can potentially be invoked to legitimise or challenge resource-related transformations. It remains to investigate each case study in its own right, while paying special attention to the way in which the larger themes outlined above play out in each instance.

6 E.g., http://www.greenprophet.com/2010/11/dubai-environment/; http://intercongreen.com/2010/02/23/dubai-the-nemesis-of-sustainability/; Alderman 2010 (all accessed 21 September 2015).

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